

*GreenCoat® color coated steel
- Maintenance instructions*





GreenCoat® color coated steel has been used in many award-winning buildings like the Longhouse in the Netherlands.



©Johanssons Plåt, Sweden

SAFETY

Before starting any maintenance actions please take safety into account. Use proper safety equipment when climbing up the roof and working in elevated positions. Ladders should not be used as a working platform. It is advised that maintenance work on steep roofs and high or otherwise difficult to reach places be entrusted to professionals.

A steel roof can be very slippery when wet!

This brochure provides inspection and maintenance instructions for SSAB color coated steels. The information applies to whole SSAB color coated portfolio, but further instructions for GreenCoat Hiarc products can be found at the end of the brochure.

If correctly maintained, GreenCoat® products will retain their properties for a very long time. Regular inspection and proper maintenance will ensure the longest possible useful life for GreenCoat® steel products such as roofs, façades and rainwater systems. With the instructions provided here, you can carry out the inspection and maintenance yourself, or you can also entrust the work to professionals.

When moving on the roof avoid causing damage to the color coating. For example sand or stones stuck to the soles of the shoes might cause scratches to the coating.

REGULAR INSPECTION

The parts of a building where color coated sheets are used should be inspected regularly, recommendation at least every other year. If any defects are found in the coating, they should be repaired immediately in order to ensure long life. The inspection should include the following procedures:

Initial inspection

Shortly after installation remove all loose objects such as loose fittings, excess pieces of sheet, drill residues and other metal particles from the roof, façade and rainwater systems. Any damage during handling and installation or damage caused by a fitting or tool dropping onto the sheet should be touch-up painted as soon as discovered.

Condition of fittings

Check the condition and attachment of the fittings. Damaged or loose fittings cause leakage, decay and a risk of corrosion. If a fitting is damaged, it and/or the roof batten should be replaced with a stronger one.

Condition of coating

Check the condition of the color coating. Remember to also inspect the valleys and rainwater system edges. Peeling of the coating, uneven fading, blistering and cracking as well as local scratching are all signs of the need to repair the coating by touch-up painting or repainting.

Follow the painting instructions given in this document when repairing the coating.



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CLEANING

Rainfall is often sufficient to keep the surfaces clean. Impurities, such as leaves and needles from trees, however, should be cleaned off the roof, roof valleys and rainwater systems once a year. Dirt and soil cause a corrosion risk by keeping the surface of the sheet wet.

Any deposits of dirt that rainwater cannot wash away can be removed by means of a soft brush and water or by high pressure washing (up to 100 bars). More stubborn dirt can be removed using a cleaning agent that is suitable for color coatings. Difficult dirt spots can be removed with a cloth moistened in white spirit. Dose the detergent in accordance with the manufacturer's instructions. Then, rinse thoroughly or use a high-pressure washer.

Washing advice

- Unsuitable or excessively strong cleaning agents may damage the product.
- Avoid organic solvents or abrasive cleaning products.
- Rinse thoroughly from the top downwards, so that all detergent residues are removed.
- Finally, clean the rainwater systems. Remove any possible blockage and dirt, then flush with water.

Rainwater systems

Rainwater systems should be cleaned every year. Blocked, partly blocked and dirty rainwater systems cause icing and corrosion problems. Remove any possible blockage and dirt, then flush. If necessary, clean the entire system and repair any damage.

TOUCH-UP PAINTING

Touch-up painting can repair minor damage such as scratches. Suitable touch-up paint that air dries can be applied with a narrow brush. It is important to apply the paint only where it is actually needed since the repair paint can be expected to gradually discolor differently from the paint applied at the factory. Spray-paints must not be used.

- Clean the damaged area using white spirit or cleaning agent as necessary.
- Paint the damaged area, 1–2 layers depending on the depth of the damage. If the damage reaches down to the primer coat only, one layer of paint is sufficient. If the damage reaches down to the zinc, apply another layer of paint after the first layer has dried.

TREATMENT OF EDGE CORROSION

Edge corrosion, in which the cut eave's edge begins to rust, can sometimes occur, particularly on low-pitched roofs. To ensure that the steel sheet will remain intact, edge corrosion should be treated with the following instructions. In aggressive environments, it may be advisable to protect exposed cut edges already after installation.

1. Rub down or scrape off any peeling or flaking coating or corrosion residues. Rub down a narrow area of adjacent original paint.
2. Remove any rust by sanding or with a steel brush.
3. Clean with an alkaline degreasing agent.

4. Paint the prepared area with an anti-corrosion primer applied by brush.
5. Paint with a top coat, also onto the rubbed-down surface. If edge corrosion has occurred, take special care to ensure that the paint encloses the entire cut edge.

On overlapping steel sheets, edge corrosion may be more difficult to treat in the way described above, since the underside is not accessible for cleaning. Sealing the edge, i.e. cleaning as described above and then applying a jointing compound over the joints, can solve this.

REPAINTING

Repainting of color coated steel sheet surface may be necessary due to discoloration, corrosion, or simply in order to change the color. Before any decision is made to completely repaint entire surfaces, check that the adhesion of the coating to the base is good. If the coating adhesion is poor, it is best to consult an expert to establish and plan a repainting scheme.

Please remember, that the repainting will not extend the product warranty period, on the contrary the aesthetic warranty period is no longer valid if the product is repainted. The repainted surface is not manufactured by SSAB and therefore does not come with a GreenCoat guarantee. If the Product is repainted by SSAB, it doesn't reduce the original guarantee period.

It is difficult to give an exact time for when maintenance painting should be carried out, as the useful life of color coatings is dependent on many factors. UV radiation and impurities in the air have the greatest effect on color coatings, and the durability of different products varies. As a general rule, it can be said that dark colors should be repainted earlier than light ones. A color coated surface, which is repainted in good time, grants an extremely long useful life (up to over 50 years). Even when the protection provided by the color coating no longer works, the steel is still protected by the

zinc coating. The recommended time for maintenance painting is max 5 years after the Aesthetical performance guarantee time, determined in GreenCoat® European guarantee available in ssab.com, has end. Please check the GreenCoat® guarantee document for the guarantee periods for your product.

Please note that the appearance of the repainted surface may be different to the original, especially with structured surfaces.

Repainting of GreenCoat Hiarc

GreenCoat Hiarc is based on fluoropolymer with a naturally non-stick type of surface and it is very difficult to achieve good adhesion when repainting. Therefore, we recommend trusting the work to professionals. Please contact SSAB if you need support in determining the type of coating.

Repainting of old GreenCoat® products (except GreenCoat Hiarc and GreenCoat Hiarc Max)

- Check the adhesion of the old coating by a cross hatch paint adhesion test.
- Remove any coating that is peeling or flaking by high-pressure water or a paint stripper.
- Make sure not to damage the zinc layer beneath the color coating.
- Remove any rust by sanding or with a steel brush.
- Wash the surface.
- Rinse thoroughly from the top downwards.
- Make sure that the surface is dry before applying a new layer of paint.
- Confirm the suitability and adhesion of the maintenance paint by test painting.
- Use anti-corrosion primer if needed.
- Paint, 1 – 2 layers of top coat.





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SOLAR PANELS

All the above instructions are valid also with roofs that have mounted solar panels. With solar panels the following guidelines should also be considered.

Before installation

The condition of the roof should be assessed before the mounting of solar panels. If any defects or damage is noticed those should be dealt with according to the above instructions. Attending to the defects prior to mounting the solar panels is much easier and cheaper. Defects left unattended may cause unnecessary damage to the roof. Dirty roof should be washed before the installation of solar panels.

Installation

Follow good construction practices and use fasteners specifically designed for each roof type. It is not advised to install solar panels on a galvanized roof unless the roof is painted first. Solar panels on a galvanized roof cause a localized corrosion risk.

It is advised to place the solar panels starting from the ridge of the roof towards the eaves of the roof to avoid unnecessary snow load.

Possible scratches or other damage to the color coating caused by the installation of the solar panels must be dealt immediately according to the above instructions. Angle grinders with a cut-off disc or any other devices that produce heat are not allowed to be used. Clean the work area and the surroundings after the installation according to the above instructions.

Maintenance

Normal rainfall cannot wash the area under the solar panels as sufficiently as with areas that are not covered. During regular inspection of the roof, extra attention must be given to areas covered by solar panels. Any significant deposits of dirt that normal rainfall has not cleaned needs to be removed according to the cleaning instruction given above. Remove any blockages (for example leaves or needles) between the roof and the panels.

MAINTENANCE LOG

It is advised to keep a log about the maintenance work done (cleaning and painting materials, working methods, temperature, and weather conditions). Documentation will also help in the maintenance and future repainting work.

REGULAR INSPECTION Q & A

The steel sheet surfaces of the building must be inspected regularly to enable effective maintenance to be carried out. The following should be checked during the inspection, and the necessary action should then be taken.

Check	Action
Damage or scratches on surface	Consider whether touch-up painting, repainting or changing of individual sheets is necessary, depending on the extent and type of damage.
Dirt accumulations	Remove dirt accumulations like leaves and needles from trees. Any deposits of dirt that rainwater cannot wash away can be removed by means of a soft brush and water or by high-pressure washing (< 100 bar).
Dirt in gutters	Remove any possible blockage and dirt, then flush. If necessary, clean the entire system.
Edge corrosion	Clean the corroded edge thoroughly and repaint using the instructions given in this document.
Excess metal objects	Remove loose fasteners, pop-rivet stems, drilling chips or other metal objects as they may cause corrosion.
Fasteners	Replace wrong or incorrectly fitted fasteners.
Visual changes (discoloration, signs of chalking)	Evaluate the condition of the surface and assess whether cleaning or repainting is necessary.

INSPECTION PROTOCOL

The building's designation _____

Address _____

GreenCoat, type roof _____ color _____

GreenCoat, type façade _____ color _____

GreenCoat, type rainwater system _____ color _____

Surrounding environment _____ Year and month of installation _____

Inspection data first inspection

Date _____ Inspected by _____

Comments (executed actions) _____

Annual inspections

Date	Comments and executed measures	Inspected by
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

SSAB

SSAB has manufactured products for the building industry for more than 50 years and is the pioneer and innovator of creating sustainable color coated products offering Swedish rapeseed oil in the coating.

SSAB is a Nordic and US-based steel company offering value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has production facilities in Sweden, Finland and the US and employees in over 50 countries. www.ssab.com

GreenCoat® is available in



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